Clean Version of the Claims

1.   (Amended) A method for the production of a pseudo stable reference control for the reliable generation of composite video signals from a broadcast data receiver receiving video, audio and/or auxiliary data from a broadcaster, said broadcast data receiver having storage means in which to store data, said method includes the steps of:

said broadcast data receiver producing a pseudo stable reference by extracting/deriving at least one value from frequency information embedded in incoming broadcast data: and

using said pseudo stable reference to control the frequency of a voltage controlled crystal oscillator in said broadcast data receiver, thereby allowing accurate color sub-carrier frequency generation for the generation of a video output via said broadcast data receiver, or a videocassette recorder communicating with said broadcast data receiver.

2.   (Amended) A method according to claim 1 wherein said derived pseudo stable reference is stored in said storage means and updated at pre-determined time intervals.

3.   (Amended) A method according to claim 1 wherein said storage means is in the form of a hard disk drive.

4.   (Amended) A method according to claim 1 wherein said broadcast data receiver is provided with micro-processing means which may extract the frequency information embedded in the incoming data streams and produce a suitable pulse width modulated signal to control the frequency of said voltage controlled crystal oscillator.

5.   (Amended) A method according to claim 1 wherein said at least one value is an average value of stable frequency references embedded in incoming data.

6.   (Amended) A method according to claim 5 wherein said at least one value is average pulse width modulated readings.

7.   (Amended) A method according to claim 6 wherein said average pulse width modulated readings are extracted/recorded during the phase locked loop of software routine of the micro-processing means.

8.   (Amended) A method according to claim 7 wherein the phase locked loop software compares a 90KHz stable clock reference from the incoming data stream to the local frequency of said voltage controlled crystal oscillator.

9.   (Amended) A method according to claim 5 wherein said average stable frequency reference values include the mean or median average readings thereof.

10.   (Amended) A method according to claim 6 wherein said pseudo stable reference is the average of the current pulse width modulated value, the most recent pulse width modulated value stored in memory in said broadcast data receiver and the oldest pulse width modulated value stored in memory in said broadcast data receiver.

11.   (Amended) A method according to claim 1 wherein timer means are provided in said broadcast data receiver to allow a pre-determined time period to pass before the micro-processing means extracts/records said at least one value from said incoming data stream.

12.   (Amended) A method according to claim 11 wherein said timer means is a real time clock embedded in the incoming data.

13. (Amended) A method according to claim 11 wherein said timer means is information derived from digital video broadcast service information.

14. (Amended) A method according to claim 1 wherein said at least one value is derived by locking the frequency of said voltage controlled crystal oscillator in said broadcast data receiver to an off air data stream and using the frequency information embedded in said off air data stream as said pseudo stable reference to control the frequency of said voltage controlled crystal oscillator.

15. (Amended) A method according to claim 14 wherein if there is a choice of digital or analogue broadcast signals from which said at least one value may be derived therefrom, said broadcast data receiver derives said at least one value from an analogue data signal.

16. (Amended) A method according to claim 14 wherein locking of the frequency of said voltage controlled crystal oscillator within said broadcast data receiver to an off air data stream is undertaken during or at the same time as playback of data stored in said broadcast data receiver and/or videocassette recorder.

17. (Amended) A method according to claim 14 wherein said broadcast data receiver records and stores at least one extracted stable frequency reference value from the off air data stream at pre-determined time intervals, so that if locking of said broadcast data receiver to the off air data stream is lost during playback of stored data from said broadcast data receiver and/or videocassette recorder, said broadcast data receiver uses the last recorded stable frequency reference value to continue playback of the stored data.

18. (Amended) A method according to claim 17 wherein once locking of said

broadcast data receiver to the off air data stream is resumed, the last recorded stable frequency reference value is discarded and the stable frequency value taken from the off air data stream is used.

19.   (Amended) A method according to claim 14 wherein said broadcast data receiver is provided with means to watch and record different television channels simultaneously and when said broadcast data receiver is recording data from at least one channel, the, said broadcast data receiver switches the front end of the record channel off, extracts the stable reference value from the data stream of the channel being watched and uses the stable reference value to lock the watch and record channels together.

20.   (Amended) A method according to claim 19 wherein one of the watch and the record channels is an analogue channel, and the stable frequency value from this channel is used to lock the watch and record channels together.

21.   (Amended) A method according to claim 19 wherein said record channel(s) includes at least one from the group consisting of a channel from which data is being recorded onto a videocassette recorder or broadcast data receiver, a channel being used to play back video data from said broadcast data receiver, or a recording mode in which digital data is being copied from said broadcast data receiver onto a videocassette recorder.

22.   (Amended) A broadcast data receiver, said broadcast data receiver comprising:
means for receiving video, audio and/or auxiliary data from a broadcaster;
storage means in which to store data;
means for producing a pseudo stable reference by deriving/extracting at least one value from frequency information embedded in incoming data; and
said pseudo stable reference being used to control the frequency of a voltage

controlled crystal oscillator in the broadcast data receiver, thereby allowing the generation of an accurate sub-color frequency for the playback of stored data from the broadcast data receiver and/or a videocassette recorder.

23.   (Amended)   A broadcast data receiver according to claim 22 wherein said pseudo stable reference is used when at least one of said broadcast data receiver and videocassette recorder is deriving video data from said storage means.

24.   (Amended)   A broadcast data receiver according to claim 22 where in said at least one value is an average value of stable frequency information embedded in incoming data.

25.   (Amended)   A broadcast data receiver according to claim 22 wherein said at least one value is provided by locking the reference from said voltage controlled crystal oscillator within said broadcast data receiver to an off air data stream, and at least one stable reference value embedded in said off air data stream is used to generate a pseudo stable reference control.